Black Lotus Coalition

The Harlot

Designed by BAD-CAD™

Originally Published by; Black Lotus Coalition
https://odysee.com/@blacklotuscoalition
Feburary 7, 2022

Edited twice as far as I can tell from the original documentation.
(1.0, 1.5)

Document version: 2.0
This is to maintain a linear guide for all future builders. Safety is key. All of the previous information from the original documentation has been kept.

Arthur of this document:

MagØ

odysee.com/@Magz:f

Designers of The Harlot: Black Lotus Coalition
https://blacklotuscoalition.com/
https://mobile.twitter.com/moderatorgage
https://www.instagram.com/blacklotuscoaltion/

Join them, communicate, support

As per these design docs go, Thanks to all the supporters and builders of The Harlot. Though I am an unsanctioned editor I'd like to officially say, Thank you to the Black Lotus Coalition for all of their hard work, lost fingers and efforts.

So you want to build a Harlot.. huh, good choice buddy!
Whether you're a beginner or an expert as a single shot, break action, derringer style .22LR pistol the Harlot is a very simple and effective pistol to build.

This is a "Reppringer" inspired build but it is my design, not a copy or remix.

She's strong, safe, and reliable. Please do exercise caution during use, as always big brother is watching so obey the rules of firearm SAFETY and be aware of the laws in your state/country.

Have fun, stay safe, and always, ALWAYS, be FREE.

- BAD-CAD

None-Printed Parts:

8x M3x20mm button-head screws
6x M3 nuts
1x 10mm OD x 1mm wire x 50mm long spring
(springs as small as 8mm, or ⅜" OD are fine no thinner than 1mm should work)
1x Rifled .22 barrel liner or 37mm long or 9/32 OD x .028" wall x 37mm steel tube

Printed Parts:

Ammo Storage Clip
Breech Block
Ejector Rod
Grip Spacer
Hammer
Latch
Left Side Frame
Right Side Frame
Snub Barrel
Trigger
UFA Compliant Grip Spacer (..right on)

Tools Recommended for the Build:

Calipers or some other means to measure your parts
Philips, Hex, Flat-head Screwdriver (one that matches your screws)

5/16 bit or 9/32 bit (Liners use 5/16 bit/Tubes use 9/32)
(The bit I am using on the build in this document is a ¼ HSS drill bit)
Electric Drill
Superglue, Epoxy, JB Weld (used to hold the liner or tube in place)
Clamp or Vice
(this alone with the mallet or a hammer to get the liner or tube in)
Hammer or Rubber Mallet (use with clamp or vice)
Wire cutters (if you didn't buy a kit and you're making your own spring)
Metal file (used to create firing pin)
Hacksaw or a round file (used to cut and deburr the liner or tube)

Print Settings:

PLA is fine for this build, BAD-CAD personally prefer Esun PLA+, I am in agreement the value for the price is very fair. For the build in this guide I am using just that.

The original guide calls for:
Breech Block: 99% infill
With everything else printed with 6 Walls(top/bottom)
15% Infill
3x Line Multiplier
No brim, No Supports

With the build in this guide I was lazy and printed everything at 99% infill.
I also printed alternative parts from the well supported community The Harlot has surrounding it. Big shoutout to all of those creators! From the helpful asf jigs to the designs that make your Harlot stand out even more.

At the time of this edit, there are more variants and mods and I think more will come.

https://odysee.com/@blacklotuscoalition:3/Moderator-Gage-Harlot-Super-Pack-1.0:6

The UFA compliant grip spacer included makes it easier for builders to install the legally required 3.07oz compliant metal mass. Makers who don't intend to use that part need not print it.

Editor here, Hey! yeah hello. From here on I will be speaking and not Sir Moderator Gage. So not to get confused with my settings and what not.

First Step let's start printing things up, there are about 10 items to print after you've decided on your spacer of course. In this project I am going with the "Ammo Spacer". It's just so functional. Ya know?

Let's have a look at those parts for a better idea of what to expect.

Using Cura 5:

Everything under settings

Standard Quality 0.2mm, 99% infill, Gyroid

Walls 6

No brim, No Supports

Rough-stimated time of completion: 14-15 Hours

If you've never printed before this may sound like a long time, it is not. So while those are printing, let's gather those necessary tools shall we?

Above is an image of the tools I (I or i, (eye, ey-e)), used in the build for the Harlot in this guide. It is what I have, though I do suggest using the tools from the list. Mostly the saw and file. There are very helpful printable jigs out on the sea as well.

https://odysee.com/@blacklotuscoalition:3/HARLOT-BARREL-JIG:9
https://odysee.com/@Trollwerks:b/Harlot-Liner-Jig:6
https://odysee.com/@blacklotuscoalition:3/HarlotFiringPinFactory:9

I was not able to use any at the time of this editing..I was already done but I highly recommend them. Thank you guys for keeping your word on extra releases.

Got our tools, printers going brrrrrtt, let's see what we can do to finish this today! Looking at one of the 3x20mm screws first, take the file of your choosing and get it to a chisel point. I was able to achieve this by taking my grinder to two different angles before I then tapped the top with it. Slightly though because I just wanted a flat top not to shorten it anymore than I already had.

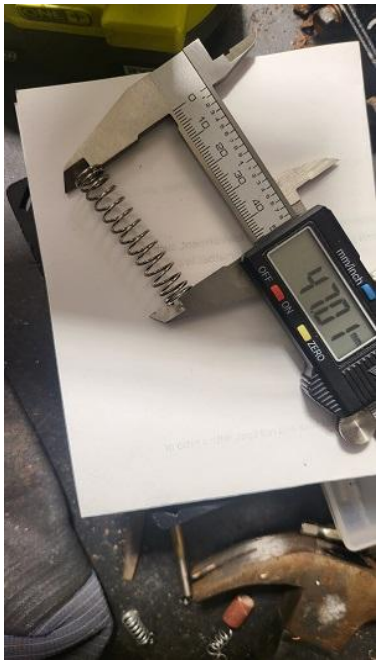
If yours looks anything like this (by anything I mean better) Congratulations!! Now sit it to the side or place it in a plastic bag so you won't lose it in the chaos we're about to start. Get that saw and drill out! My pin may be too short, do better!

The next goal is to get the barrel in functioning condition. In this build I chose to go with the .22lr barrel liner used by most of the 2A3D community. For this I'm using an electric drill and the ¼ HSS drill bit.

Take your liner and place it into your jig, rig, clamps, or cheeks and drill. Be mindful that you'll need to drill until a .22lr can fit and no more, the casing should just be touching the rim of the barrel. The images below should help you understand in more detail.

If your casings fit you can move on to the next part! Otherwise take your time and get this right. Slow and steady, try using oil.

And with that out of the way our journey for a spring starts, now for this part jigs are available 3d printable with instructions on use. They use music wire. I was given mine from my buddy Sabr. You should try to find something similar to what I have in the images on the next page.



Next up, using that vice, clamp or cheek you used earlier. It's now time to compress and epoxy the liner into our barrel. Clean and roughen the surface of your liner however you see fit. Stick some paper inside the liner so as not to get epoxy inside. Let's spread the epoxy or JB Weld all over the sides of the liner.

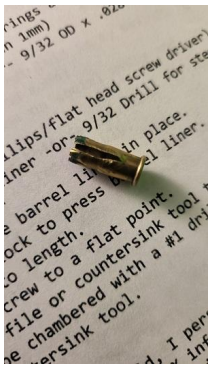
The goal is to get that thing stuck, so jam it in how you can without damaging the liner or your barrel. So don't go full Kanye.

I used a rubber mallet.
Barrel is done, firing pin is done, the beans we planted in the backyard just sprouted the perfect spring. It's now time to assemble The Harlot.

To start, let's take the "hammer" and install the firing pin and nut. Use the breech block to determine the length of your pin and adjust using the nut. Pick up the hammer and observe it. The "pin nut" goes in the front space, and you screw the pin in to lock it all down. Of course here's an image of my janky little setup below.

Okay, grab both side panels and the spacer you chose, take two of those 3x20mm screws and nuts, clamp them but don't tighten too much. Next well, toss the hammer in along with the spring and trigger. Be sure to cock the hammer back a bit to line up with the half-cock safety. Then add the breech block, tighten it all just a bit more. Take another 3x20mm screw and nut to tighten the breech block into place. While you have it visible to you, have a look at your firing pin to ensure it isn't too long or too short.

You'd usually want a decent headspacing, the pin should barely be poking out of the breech block. The pin in this build while shorter than my other should work, my previous build had a bit longer of a length and ruptured cases. This pin is breeching out the face at 1.06mm which should perform better. I have not tested this pin as of this edit. (Edit: I have tested this pin and the cases from my ramsets are still rupturing.)



I'm going to figure this thing out.

If you like me have the Ammo Spacer printed go ahead and install the Ejector Rod with one of the 3x20mm screws.

Take your Latch and install it into the under-side of the barrel, use a 3x20mm screw to secure the system in place. Check that the spring latch system functions. It may need sanding on the sides for a smooth friction free fit.

After that's all done, install your barrel along with the last 3x20mm screw and nut. Adjust the screws to fit snug but not too much so that you're preventing smooth transition where there should be.

Another note here is. Watch the provided video assembling The Harlot. It is extremely informative and the video gives way better detail than any documentation can.

By; Craft-built Defense
https://www.youtube.com/watch?v=VgIwjZz7QR8

Thanks for reading this documentation and I hope it helps!

AOW umm, know your laws no one involved in this project is by any means a lawyer. But I can tell this, be aware of the half-cock safety feature, if you're going to store a live round in The Harlot be sure to keep the hammer at half-cock.

Again, many thanks to the Black Lotus Crew for design input and testing.

Code=ART

PARTS KITS-
https://www.db-firearms.com/store/p/harlot-complete-parts-kit

BUILD TUTORIAL-
https://www.youtube.com/user/AscensionPWND

LINKS FOR PARTS-
-.22 Barrel Liner:
https://www.brownells.com/gunsmith-tools-supplies/barrel-tools/barrel-liners/22-caliber-rimfire-barrel-liners-prod10974.aspx
-Tube: McMaster-Carr part # 89895K617

-Tube:
https://www.zoro.com/zoro-select-stainless-steel-304-tubing-932-od-x-028-wall-25-g1210/i/G1195137/?gclsrc=ds
-Spring: McMaster-Carr part # 1986K95
-Spring:
https://www.amazon.com/uxcell-1mmx10mmx50mm-Stainless-Compression-Springs/dp/B076LZ86N2/ref=sr_1_1?crid=GGCQRMK5IM8T&keywords=uxcell+Compression+Spring%2C304+Stainless+Steel%2C10mm+OD%2C1mm+Wire+Size%2C50mm+Free+Length%2CSilver+Tone%2C20Pcs&qid=1643121751&sprefix=uxcell+compression+spring%2C304+stainless+steel%2C10mm+od%2C1mm+wire+size%2C50mm+free+length%2Csilver+tone%2C20pcs%2Caps%2C257&sr=8-1

Previous UPDATES-
1/25/2022-I have added a chamber pressure blow off to the barrel which is a failsafe in case the barrel liner walks forwards or the bore is obstructed. Links, minor fitment improvements, and adjusted sights.
2/7/2022-Reinforced the latch lug on the breech block.